

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A drive method of an EL display apparatus that comprises a ~~switching element which turns on and off a current path between a driver transistor and an EL element, in each pixel~~ display screen in which a plurality of pixels each of which includes an EL element are formed in a matrix, the drive method comprising:

aggregating image data input to the EL display apparatus; and

~~determining~~ calculating a period to turn off ~~the switching element according to a~~ current that flows in the EL element based on an amount of the aggregated data;

displaying a non-display area on the display screen of the EL display apparatus according to the calculated period to turn off the current that flows in the EL element, and shifting the non-display area on the display screen.

Claims 2-3 (Canceled).

Claim 4 (Currently Amended): An EL display apparatus ~~that controls brightness of a screen using a ratio between non-display and display areas on the screen~~ including a display screen in which a plurality of pixels each of which includes an EL element are formed in a matrix, the EL display apparatus comprising:

~~a display area in which EL elements and driver transistors that drive the EL elements are formed in a matrix;~~

~~gate signal lines configured to transmit voltages that turn on and off the EL elements in each pixel row;~~

~~a gate driver circuit configured to drive the gate signal lines~~ that selects a line of the pixels;

an aggregation circuit configured to aggregate image data input to the EL display apparatus; and

a control circuit that controls a timing or a period to generate a start pulse signal for the gate driver circuit based on the aggregated image data, wherein

the control circuit controls the start pulse signal so as to display a non-display area on the display screen and shift the non-display area on the display screen.

Claim 5 (Withdrawn): A control method of an EL display apparatus that controls brightness of a display screen using a ratio between non-display and display areas on the display screen, the control method comprising:

generating a delay time when changing the ratio between the non-display and display areas on the display screen from a first ratio to a second ratio.

Claim 6 (Withdrawn): The drive method of an EL display apparatus according to claim 5, wherein the ratio of the display area occupied on the display screen is equal to or a larger than 1/16 and smaller than 1/1, and

the display area sequentially shifts on the display screen.

Claims 7-14 (Canceled).

Claim 15 (New): The drive method of an EL display apparatus according to Claim 1, ~~further comprising~~ wherein:

generating the non-display area is displayed in a belt-like display area form on the display screen of the EL display apparatus; and

~~shifting the non-display area is shifted in the belt-like display area form~~ in a predetermined direction synchronized with a frame frequency.

Claim 16 (Withdrawn): The drive method of an EL display apparatus according to Claim 1, further comprising:

detecting brightness of outside the EL display apparatus;  
generating a belt-like non-display area and a belt-like display area; and  
changing or adjusting a ratio of the belt-like non-display area and the belt-like display area according to an output value obtained by the detecting.

Claim 17 (Previously Presented): The EL display apparatus according to Claim 4, further comprising:

a selection circuit formed on a substrate on which the EL elements are formed; and  
a source driver circuit, wherein  
the source driver circuit outputs a video signal of a first color or a video signal of a second color from a signal output terminal,  
the substrate includes source signal lines to supply the video signals of the source driver circuit to the EL elements,  
the selection circuit includes an input terminal to connect to the signal output terminal of the source driver circuit and a selection output terminal to connect to the source signal line,  
the selection circuit includes a plurality of combinations of one output terminal and a plurality of selection output terminals configured to connect to the one output terminal, and  
the selection circuit applies a video signal of the source driver circuit input to the input terminal of the selection circuit to the source signal line connected to the one or plural

of selection output terminals that are selected from the plurality of the selection output terminals.

Claim 18 (Previously Presented): The EL display apparatus according to Claim 4, further comprising

a source driver circuit that applies a gradation signal to the EL elements, wherein the source driver circuit includes a voltage output circuit and a current output circuit.

Claim 19 (Withdrawn): A drive method of an EL display apparatus that comprises a display screen in which an EL element is provided in each pixel formed in a matrix, the drive method comprising:

obtaining a power consumption consumed in the display screen or a data corresponding to the power consumption;

obtaining at least one of a ratio between non-display and display areas on the display screen and a number of divisions of the display area or that of the non-display area.

Claim 20 (Withdrawn): The drive method of an EL display apparatus according to Claim 19, wherein

the obtaining the power consumption or the data is performed by calculation after gamma-conversion of an input video signal.

Claim 21 (Withdrawn): The drive method of an EL display apparatus according to Claim 19, wherein

the power consumption or the data is obtained from an input video signal to the EL display apparatus.

Claim 22 (Withdrawn): The drive method of an EL display apparatus according to Claim 19, wherein

the display area and the non-display area are respectively formed as a belt-like area, and

both of the display and non-display areas are shifted in the vertical direction on the display screen synchronized with a frame frequency.

Claim 23 (Withdrawn): The drive method of an EL display apparatus according to Claim 19, further comprising:

detecting brightness of outside the EL display apparatus;

generating a belt-like non-display area and a belt-like display area as the non-display and display areas; and

changing or adjusting the ratio of the belt-like non-display area and the belt-like display area according to an output value obtained by the detecting.

Claim 24 (Withdrawn): An XL display apparatus that has a display screen in which an EL element is provided in each pixel formed in a matrix, comprising:

a calculation circuit that obtains a power consumption consumed in the display screen or a data corresponding to the power consumption by a processing of weighting at least a video signal of a first color and a video signal of a second color; and

a display control circuit that controls to vary at least one of a ratio between non-display and display areas on the display screen and a number of divisions of the display area or that of the non-display area.

Claim 25 (Withdrawn): The EL display apparatus according to Claim 24, further comprising:

- a selection circuit formed on a substrate on which the EL elements are formed, and
- a source driver circuit, wherein
  - the source driver circuit outputs a video signal of a first color or a video signal of a second color from a signal output terminal,
  - the substrate includes source signal lines to supply the video signals of the source driver circuit to the EL elements,
  - the selection circuit includes an input terminal to connect to the signal output terminal of the source driver circuit and a selection output terminal to connect to the source signal line,
  - the selection circuit includes a plurality of combinations of one output terminal and a plurality of selection output terminals configured to connect to the one output terminal, and
  - the selection circuit applies a video signal of the source driver circuit input to the input terminal of the selection circuit to the source signal line connected to the one or plural of selection output terminals that are selected from the plurality of the selection output terminals.

Claim 26 (Withdrawn): The EL display apparatus according to Claim 24, further comprising:

- a source driver circuit that applies a gradation signal to the EL elements, wherein
  - the source driver circuit includes a voltage output circuit and a current output circuit.

Claim 27 (Withdrawn): The EL display apparatus according to Claim 24, wherein

- the source driver circuit is an IC chip comprising a semiconductor, and
- the selection circuit is formed on the substrate by poly-silicon processing.

Claim 28 (Withdrawn): The EL display apparatus according to Claim 24, wherein a drive transistor to supply current the EL element and a switch transistor formed on path of the current are provided in each of pixels, and the current is controlled by switching on and off a switch transistor to generate belt-like non-display and display areas as the non-display and display areas on the display screen.

Claim 29 (New): The drive method of an EL display apparatus according to claim 1, wherein the shifting the non-display area in the display screen is performed synchronizing with one frame period.

Claim 30 (New): The drive method of an EL display apparatus according to claim 1, wherein in the display screen of the EL display apparatus the plurality of the pixels formed in the matrix have a plurality of colors, and the data input to the EL display apparatus is processed weighted according to each of the plurality of colors.

Claim 31 (New): The EL display apparatus according to claim 4, wherein brightness of the display screen is controlled by varying a ratio of the non-display area to the display screen.

Claim 32 (New): The EL display apparatus according to claim 4, wherein

the shifting the non-display area in the display screen is performed synchronizing with one frame period.

Claim 33 (New): The EL display apparatus according to claim 4, further comprising:  
detecting means for detecting the brightness of outside the EL display apparatus,  
wherein

a ratio of the non-display area to the display screen is varied based on an output of the detecting means.

Claim 34 (New): The EL display apparatus according to claim 4, wherein  
the display screen includes the plurality of pixels having a plurality of colors, and  
at least one color of the plurality of colors is different from the other colors of the plurality of colors in size.

Claim 35 (New): The EL display apparatus according to claim 4, wherein the non-display area is divided into a plurality of parts.